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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------------|------------------|
| 10/687,808 | 10/20/2003 | Hideki Matsuda | 117557 | 2463 |
| 25944 | 7590 | 02/16/2005 | | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | EXAMINER MAHONEY, CHRISTOPHER E | |
| | | | ART UNIT 2851 | PAPER NUMBER |

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,808

Applicant(s)

MATSUDA ET AL.

Examiner

Christopher E Mahoney

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-16,18 and 19 is/are rejected.
- 7) ☒ Claim(s) 2,7 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/20/03 & 4/8/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-4, 6, 8-9, 11-14, 16 and 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Mochizuki (U.S. Patent No. 6,846,081). Mochizuki teaches an image processing system comprising: sensing means 105 for sensing a projection area on which an image is projected and outputting sensing information; histogram generation means for generating histogram information (col. 6, lines 3-5) that expresses histograms of the numbers of pixels of the sensed image in each of the vertical and horizontal directions, based on the sensing information; direction determination means (109, col. 6, lines 47-50) for generating direction information, based on an angle between a normal direction orthogonal to the projection area from a sensing position and a projected image direction toward a central portion of the projected image from the sensing position; and keystone distortion correction means (111, col. 6, lines 50-61) for correcting keystone distortion of the projected image, based on the histogram

Art Unit: 2851

information and the direction information. The four points and four lines which may be used is depicted in figure 5 for example. The applicant is directed to further review figures 1-5, 8-10, 13-14, 17, 22 and 25-26.

Claims 3-5, 8-9, 12, 14, and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mayer, III (U.S. Patent No. 6,483,537). Mayer, III teaches an image processing system comprising: light projection means 42 for projecting light of a distortion-free and predetermined shape into a projection area; sensing means 40 for outputting sensing information obtained by sensing the projection area into which the light of the predetermined shape is projected, from a projection position of a projection section for projecting an image; area extraction means (x/y analysis array registers) for extracting coordinates of the light of the predetermined shape in a sensed area, based on the sensing information; and keystone distortion correction means 38 for converting the coordinates of the light of the predetermined shape in the sensed area into coordinates for projection in a spatial light modulator of the projection section, and correcting keystone distortion by mapping coordinates of an input image into the projection coordinates (figure 7). The applicant is directed to review the figures as well as col. 3, lines 42-59.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki (U.S. Patent No. 6,846,081) in view of Liebnow (U.S. Patent No. 6,305,805) and Raskar (U.S. Patent No. 6,733,138). Mochizuki teaches the salient features of the claimed invention except it does not explicitly state that the projector 10 is portable nor does it depict "display means". The examiner notes that the claim(s) do not require that the portable device and the display device be separate. Liebnow depicts in figure 5 a portable projector 10 and portable computer 24 connected to the projector. The computer of Liebnow has a display 28 and keystone distortion correction means (32). The applicant is directed to review figures 5 and 6 of Liebnow. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the portable projector and computer of Liebnow for the purpose of portability as well as versatility in use with additional projection means. While it does provide for input of correction data and it does teach an assortment of input means, Liebnow does not teach that the sensing means are connected to the computer. Raskar teaches in figure 1 the sensing means in the form of a camera 110 which inputs the projection section is connected to the processor 120. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features of Raskar for the purpose of automatically inputting the image information.

Allowable Subject Matter

Claims 2, 7 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2851

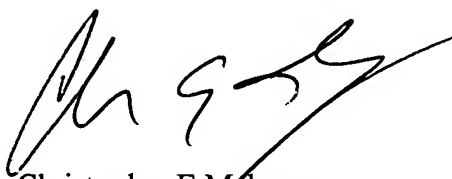
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Mahoney whose telephone number is (571) 272-2122. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Ch E Mahoney', is written over the printed name and title.

Christopher E Mahoney
Primary Examiner
Art Unit 2851